

| L Number | Hits    | Search Text   | DB                | Time stamp       |
|----------|---------|---|-------------------|------------------|
| 13       | 1       | 09/590,641  | USPAT; US-PGPUB   | 2004/08/31 10:27 |
| 18       | 2273488 | paper or web or media or medium or sheet  | EPO; JPO; DERWENT | 2004/08/31 09:34 |
| 26       | 2611451 | sensor or sensing or sense or sensed or detect or detector or detection or detected or detecting or photodetect\$ or optidetect\$   | EPO; JPO; DERWENT | 2004/08/31 09:42 |
| 28       | 14      | ("4925121"   "5281991"   "5326182"   "5352900"   "5370049"   "5393149"   "5517915"   "5743664"   "6092940"   "6099178"   "6164851"   "6179245"   "6224276"   "6250826").PN.   | USPAT             | 2004/08/31 10:44 |
| 29       | 19      | 6099178.URPN.   | USPAT             | 2004/08/31 10:38 |
| 41       | 29      | ("4129855"   "4247758"   "4806958"   "4880325"   "5184152"   "5185315"   "5196846"   "5268708"   "5297881"   "5305020"   "5331338"   "5342671"   "5385416"   "5426011"   "5455617"   "5491327"   "5493385"   "5513920"   "5562352"   "5565906"   "5598201"   "5600350"   "5600352"   "5620265"   "5647679"   "5661515"   "5713288"   "5755519"   "5774639").PN.                     | USPAT             | 2004/08/31 10:34 |
| 42       | 2       | jp-08273245-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 10:39 |
| 43       | 1       | jp-03205174-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:01 |
| 44       | 1       | gb-2263467-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 10:40 |
| 45       | 2       | ep-401036-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 10:40 |
| 46       | 1       | ("4925121").PN.   | USPAT; US-PGPUB   | 2004/08/31 10:45 |
| 47       | 1       | ("4171781").PN.   | USPAT; US-PGPUB   | 2004/08/31 10:51 |
| 48       | 1       | ("5071081").PN.   | USPAT; US-PGPUB   | 2004/08/31 10:56 |
| 49       | 14      | ("1645432"   "1865908"   "2350136"   "2678781"   "3227134"   "3384314"   "3563376"   "3592407"   "3606012"   "4074875"   "4489541"   "4681231"   "4694949"   "4736579").PN.   | USPAT             | 2004/08/31 10:53 |
| 50       | 1       | 5071081.URPN.   | USPAT             | 2004/08/31 10:55 |
| 51       | 158526  | (speed or velocity or rotation or rpm or revolution) near2 (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored)   | EPO; JPO; DERWENT | 2004/08/31 10:57 |
| 52       | 68      | (spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (speed or velocity or rotation or rpm or revolution) near2 (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) | EPO; JPO; DERWENT | 2004/08/31 12:54 |
| 53       | 1       | jp-05016499-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:12 |
| 55       | 2       | jp-2002160854-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:25 |
| 56       | 2       | jp-2002154244-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 12:36 |
| 57       | 1       | ("5003333").PN.   | USPAT; US-PGPUB   | 2004/08/31 11:17 |
| 58       | 2       | jp-63262365-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:30 |
| 59       | 119     | (spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (remnant residual)  | EPO; JPO; DERWENT | 2004/08/31 11:28 |

|    |     |  |                      |                  |
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| 60 | 119 | ((spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (remnant residual)) not (((JP-10329992-\$ .did. JP-09206830-\$ .did.<br>JP-09175738-\$ .did.<br>JP-09097711-\$ .did.<br>JP-08039144-\$ .did.<br>JP-08001239-\$ .did.<br>JP-3018823-\$ .did.<br>JP-07267503-\$ .did.<br>JP-07247056-\$ .did.<br>JP-07030256-\$ .did.<br>JP-07019272-\$ .did.<br>JP-07069534-\$ .did.<br>JP-07053134-\$ .did.<br>JP-07009870-\$ .did.<br>JP-07004469-\$ .did.<br>JP-06086809-\$ .did.<br>JP-06316381-\$ .did.<br>JP-06312886-\$ .did.<br>JP-06078365-\$ .did.<br>JP-06285564-\$ .did.<br>JP-06285543-\$ .did.<br>JP-06285542-\$ .did.<br>JP-06063558-\$ .did.<br>JP-06061877-\$ .did.<br>JP-06061308-\$ .did.<br>JP-06208027-\$ .did.<br>JP-06206669-\$ .did.<br>JP-06206668-\$ .did.<br>JP-06053571-\$ .did.<br>JP-06053549-\$ .did.<br>JP-06049461-\$ .did.<br>JP-06045965-\$ .did.<br>JP-06156881-\$ .did.<br>JP-06144714-\$ .did.<br>JP-06036853-\$ .did.<br>JP-06029709-\$ .did.<br>JP-06087023-\$ .did.<br>JP-06087022-\$ .did.<br>JP-06087021-\$ .did.<br>JP-06018368-\$ .did.<br>JP-06018365-\$ .did.<br>JP-06018363-\$ .did.<br>JP-06047442-\$ .did.<br>JP-06014177-\$ .did.<br>JP-06014175-\$ .did.<br>JP-06031337-\$ .did.<br>JP-06031336-\$ .did.<br>JP-06010264-\$ .did.<br>JP-06010262-\$ .did.<br>JP-06008369-\$ .did.<br>JP-06016341-\$ .did.<br>JP-06016340-\$ .did.<br>JP-06016338-\$ .did.<br>JP-06015357-\$ .did.<br>JP-05321965-\$ .did.<br>JP-05088705-\$ .did.<br>JP-05301683-\$ .did.<br>JP-05270742-\$ .did.<br>JP-05261436-\$ .did.<br>JP-05254736-\$ .did.<br>JP-05072867-\$ .did.<br>JP-05068996-\$ .did.<br>JP-05229742-\$ .did.<br>JP-05229739-\$ .did.<br>JP-05178539-\$ .did. | EPO; JPO;<br>DERWENT | 2004/08/31 11:28 |
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|----|--------|---|-------------------|------------------|
| 61 | 113    | ((spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (remnant residual)) not ((spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (speed or velocity or rotation or rpm or revolution) near2 (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored))  | EPO; JPO; DERWENT | 2004/08/31 11:29 |
| 62 | 204    | NAMEKATA-SEIICHI.in.  | EPO; JPO; DERWENT | 2004/08/31 11:29 |
| 63 | 237543 | b65h\$.ipc. or b65h\$.epc.  | EPO; JPO; DERWENT | 2004/08/31 12:45 |
| 64 | 338078 | b41j\$.ipc. or b41j\$.epc.  | EPO; JPO; DERWENT | 2004/08/31 11:29 |
| 65 | 550365 | (b65h\$.ipc. or b65h\$.epc.) or (b41j\$.ipc. or b41j\$.epc.)  | EPO; JPO; DERWENT | 2004/08/31 11:29 |
| 66 | 88     | NAMEKATA-SEIICHI.in. and ((b65h\$.ipc. or b65h\$.epc.) or (b41j\$.ipc. or b41j\$.epc.))   | EPO; JPO; DERWENT | 2004/08/31 12:45 |
| 67 | 1      | jp-11325966-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:31 |
| 68 | 1      | jp-11099717-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:35 |
| 69 | 80     | SUZUKI-TATSUMA.in.  | EPO; JPO; DERWENT | 2004/08/31 11:34 |
| 70 | 1      | jp-11322199-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:37 |
| 71 | 1      | jp-11310358-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:38 |
| 72 | 1      | jp-11130310-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 11:38 |
| 73 | 2      | jp-63134457-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:06 |
| 75 | 398    | b65h026/08.ipc. or b65h026/08.epc.  | EPO; JPO; DERWENT | 2004/08/31 13:15 |
| 76 | 387    | (b65h026/06.ipc. or b65h026/06.epc.) not (((spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (remnant residual)) not ((spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (speed or velocity or rotation or rpm or revolution) near2 (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored))) | EPO; JPO; DERWENT | 2004/08/31 12:53 |
| 77 | 0      | MARUYAMA-MASAHIKE.did.  | USPAT; US-PGPUB   | 2004/08/31 13:15 |
| 78 | 3      | MARUYAMA-MASAHIKE.in.   | USPAT; US-PGPUB   | 2004/08/31 12:53 |
| 80 | 201320 | 400/\$.ccls. or 101/\$.ccls. or 399/\$.ccls. or 347/\$.ccls. or 242/\$.ccls. or 226/\$.ccls.  | USPAT; US-PGPUB   | 2004/08/31 12:54 |
| 81 | 1      | jp-04094359-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:06 |
| 79 | 64     | (spool or reel or shaft or bobbin or mandrel or roll) near1 (paper or media or medium or sheet or web or substrate) near3 (speed or velocity or rotation or rpm or revolution) near2 (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored)   | USPAT; US-PGPUB   | 2004/08/31 13:33 |
| 82 | 13     | ("3257086"   "3898436"   "4114830"   "4199118"   "4286757"   "4844371"   "5234177"   "5469869"   "5470300"   "5503349"   "5678393"   "5875610"   "5967445").PN.   | USPAT             | 2004/08/31 13:13 |
| 83 | 13     | ("3257086"   "3396919"   "3898436"   "4114830"   "4199118"   "4286757"   "4697408"   "4844371"   "5234177"   "5469869"   "5502358"   "5503349"   "5709347").PN.   | USPAT             | 2004/08/31 13:13 |
| 84 | 2      | ep-608785-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:15 |
| 85 | 81720  | de-41 jp-62286789-\$ did. "679" -\$ did.  | EPO; JPO; DERWENT | 2004/08/31 13:15 |

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| 86  | 2     | de-4130679-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 13:16 |
| 87  | 2     | jp-61211263-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:57 |
| 88  | 1     | jp-04135546-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:16 |
| 89  | 0     | jp-03-198916-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 13:16 |
| 90  | 1     | jp-03198916-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:17 |
| 91  | 2     | jp-01266916-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:17 |
| 92  | 1     | jp-01166818-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:17 |
| 93  | 1     | jp-63060857-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:18 |
| 94  | 1     | jp-05338883-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:18 |
| 95  | 4     | 5967445.URPN.   | USPAT             | 2004/08/31 13:18 |
| 96  | 2     | 6301862.URPN.   | USPAT             | 2004/08/31 13:19 |
| 97  | 102   | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core) | EPO; JPO; DERWENT | 2004/08/31 13:35 |
| 98  | 2     | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core) | EPO; JPO; DERWENT | 2004/08/31 13:44 |
| 99  | 6     | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core) | USPAT; US-PGPUB   | 2004/08/31 13:38 |
| 100 | 1     | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core) | USOCR             | 2004/08/31 13:38 |
| 101 | 0     | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core) | IBM_TDB           | 2004/08/31 13:39 |
| 102 | 0     | (scan scanning scanned read reading) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core)   | IBM_TDB           | 2004/08/31 13:39 |
| 103 | 1     | (scan scanning scanned read reading) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core)   | EPO; JPO; DERWENT | 2004/08/31 13:39 |
| 104 | 2     | (scan scanning scanned read reading) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core)   | USPAT; US-PGPUB   | 2004/08/31 13:40 |
| 105 | 0     | (scan scanning scanned read reading) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core)   | IBM_TDB           | 2004/08/31 13:40 |
| 106 | 2     | (scan scanning scanned read reading) near2 (mark or marking or indicia or indicum or code or barcode) near3 (inner or inside or interior) near2 (mandrel journal tube roll spool reel hub core)   | USOCR             | 2004/08/31 13:43 |
| 107 | 9011  | (242/590-614.1).CCLS.   | USPAT; US-PGPUB   | 2004/08/31 13:43 |
| 108 | 39816 | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode)   | EPO; JPO; DERWENT | 2004/08/31 13:45 |

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| 109 | 57000 | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode)   | USPAT; US-PGPUB   | 2004/08/31 13:45 |
| 110 | 0     | ( (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) ) and ( (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) ) | USPAT; US-PGPUB   | 2004/08/31 13:45 |
| 111 | 57000 | (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode)   | USPAT; US-PGPUB   | 2004/08/31 13:45 |
| 112 | 25    | ((242/590-614.1).CCLS.) and ( (measure or sensor or detector or photodetector or senses or sensed or sensing or detect or detected or detecting or detection or monitor or measuring or measured or monitoring or monitored) near2 (mark or marking or indicia or indicum or code or barcode) )   | USPAT; US-PGPUB   | 2004/08/31 13:45 |
| 113 | 1     | jp-07008372-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 13:58 |
| 114 | 0     | jp-07008372-U did.  | EPO; JPO; DERWENT | 2004/08/31 15:44 |
| 74  | 400   | b65h026/06.ipc. or b65h026/06.epc.  | EPO; JPO; DERWENT | 2004/08/31 15:09 |
| 115 | 39    | (mark or marking or indicia or indicum or code or barcode) near2 (inner or inside or interior) near1 (core or mandrel or spool or reel or hub or journal or tube or spindle)  | EPO; JPO; DERWENT | 2004/08/31 15:15 |
| 116 | 1     | ("5807001").PN.   | USPAT; US-PGPUB   | 2004/08/31 15:13 |
| 117 | 3     | 5807001.URPN.   | USPAT             | 2004/08/31 15:13 |
| 118 | 8     | ("0879159"   "2937818"   "3718290"   "3894507"   "3913200"   "4479730"   "5370332"   "5492422").PN.   | USPAT             | 2004/08/31 15:13 |
| 119 | 52    | (mark or marking or indicia or indicum or code or barcode) near2 (inner or inside or interior) near1 (core or mandrel or spool or reel or hub or journal or tube or spindle)  | USPAT; US-PGPUB   | 2004/08/31 15:15 |
| 120 | 4     | ("4620184"   "5033623"   "5691919"   "5769353").PN.   | USPAT             | 2004/08/31 15:40 |
| 121 | 1     | 6334587.URPN.   | USPAT             | 2004/08/31 15:43 |
| 122 | 2     | ep-597184-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 15:44 |
| 123 | 0     | ep-459668 -\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:44 |
| 124 | 2     | ep-459668-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 15:45 |
| 125 | 2     | de-4421485-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:45 |
| 126 | 2     | de-4005548-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:47 |
| 127 | 0     | de-3816800 -\$ did.   | EPO; JPO; DERWENT | 2004/08/31 15:47 |
| 128 | 1     | de-3816800-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:53 |
| 129 | 1     | ("5268581").PN.   | USPAT; US-PGPUB   | 2004/08/31 15:54 |
| 130 | 2     | ("3931524"   "4463251").PN.   | USPAT             | 2004/08/31 15:54 |
| 131 | 1     | 5268581.URPN.   | USPAT             | 2004/08/31 15:54 |
| 132 | 2     | fr-2670927-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:55 |
| 133 | 2     | jp-59182246-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 15:55 |
| 134 | 1     | jp-59182146-\$ did.   | EPO; JPO; DERWENT | 2004/08/31 15:56 |

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| 135 | 1      | jp-01297266-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 15:57 |
| 136 | 1      | jp-02265855-\$ did.  | EPO; JPO; DERWENT | 2004/08/31 16:33 |
| 137 | 1      | ("4463251").PN.  | USPAT; US-PGPUB   | 2004/08/31 16:17 |
| 138 | 11     | ("3600556"   "3643068"   "3931524"   "3978317"   "3988573"   "4057784"   "4192452"   "4193540"   "4224509"   "4250405"   "4333006").PN.  | USPAT             | 2004/08/31 15:58 |
| 139 | 9      | 4463251.URPN.  | USPAT             | 2004/08/31 15:59 |
| 140 | 1      | ("5268581").PN.  | USPAT; US-PGPUB   | 2004/08/31 16:17 |
| 141 | 32408  | (notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)   | EPO; JPO; DERWENT | 2004/08/31 16:39 |
| 142 | 10797  | (notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$)   | EPO; JPO; DERWENT | 2004/08/31 16:35 |
| 143 | 437    | ((notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)) and ((notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$))  | EPO; JPO; DERWENT | 2004/08/31 16:35 |
| 144 | 181206 | (rotat\$ or velocity or speed or rate or residual or remnant or rpm or revolution) near2 (sens\$ or detect\$)  | EPO; JPO; DERWENT | 2004/08/31 16:35 |
| 145 | 46     | (((notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)) and ((notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$))) and ((rotat\$ or velocity or speed or rate or residual or remnant or rpm or revolution) near2 (sens\$ or detect\$))  | EPO; JPO; DERWENT | 2004/08/31 16:35 |
| 146 | 237543 | b65h\$.ipc. or b65h\$.epc.   | EPO; JPO; DERWENT | 2004/08/31 16:55 |
| 147 | 1412   | ((notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)) and (b65h\$.ipc. or b65h\$.epc.)  | EPO; JPO; DERWENT | 2004/08/31 16:38 |
| 148 | 20541  | (notch or groove or cutout or cut-out) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)  | EPO; JPO; DERWENT | 2004/08/31 16:39 |
| 149 | 962    | (((notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)) and (b65h\$.ipc. or b65h\$.epc.)) and ((notch or groove or cutout or cut-out) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft))  | EPO; JPO; DERWENT | 2004/08/31 16:38 |
| 150 | 5      | (((notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$)) and (((notch or groove or cutout or cut-out or gap) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft)) and (b65h\$.ipc. or b65h\$.epc.)) and ((notch or groove or cutout or cut-out) near2 (spool or spindle or hub or journal or mandrel or reel or roll bobbin shaft))) | EPO; JPO; DERWENT | 2004/08/31 16:43 |
| 151 | 750542 | notch or groove or cutout or cut-out   | EPO; JPO; DERWENT | 2004/08/31 16:39 |
| 152 | 29     | b65026/06.ipc. or b65h026/06.epc. b65026/08.ipc. or b65h026/08.epc.  | EPO; JPO; DERWENT | 2004/08/31 16:40 |
| 153 | 784    | b65H026/06.ipc. or b65h026/06.epc. b65H026/08.ipc. or b65h026/08.epc.  | EPO; JPO; DERWENT | 2004/08/31 16:40 |
| 154 | 9      | (notch or groove or cutout or cut-out) and (b65H026/06.ipc. or b65h026/06.epc. b65H026/08.ipc. or b65h026/08.epc.)   | EPO; JPO; DERWENT | 2004/08/31 16:40 |
| 155 | 340    | ((notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$)) and (b65h\$.ipc. or b65h\$.epc.)  | EPO; JPO; DERWENT | 2004/08/31 16:43 |
| 156 | 340    | (((notch or groove or cutout or cut-out or gap) near2 (sens\$ or detect\$)) and (b65h\$.ipc. or b65h\$.epc.)) not ((notch or groove or cutout or cut-out) and (b65H026/06.ipc. or b65h026/06.epc. b65H026/08.ipc. or b65h026/08.epc.))   | EPO; JPO; DERWENT | 2004/08/31 16:47 |
| 157 | 418    | (242/118.4).CCLS.  | USPAT; US-PGPUB   | 2004/08/31 16:52 |
| 158 | 0      | ("web or paper or media) near1 (roll or spool or reel or spindle or hub)".PN.  | USPAT; US-PGPUB   | 2004/08/31 16:48 |
| 159 | 19865  | (web paper media) near1 (roll spool reel spindle hub)  | USPAT; US-PGPUB   | 2004/08/31 16:49 |
| 160 | 3      | ((242/118.4).CCLS.) and ((web paper media) near1 (roll spool reel spindle hub))  | USPAT; US-PGPUB   | 2004/08/31 16:49 |
| 161 | 406465 | printer printing image near1 (recording or forming or recorder) or 400/\$.ccls. or 347/\$.ccls.  | USPAT; US-PGPUB   | 2004/08/31 16:50 |

|     |         |   |                   |                  |
|-----|---------|---|-------------------|------------------|
| 162 | 4       | ((242/118.4).CCLS.) and (printer printing image near1 (recording or forming or recorder) or 400/\$.ccls. or 347/\$.ccls. )                                      | USPAT; US-PGPUB   | 2004/08/31 16:50 |
| 163 | 12      | ((242/118.4).CCLS.) and paper   | USPAT; US-PGPUB   | 2004/08/31 16:50 |
| 164 | 261     | (242/118.8).CCLS.   | USPAT; US-PGPUB   | 2004/08/31 16:54 |
| 165 | 65      | (242/579).CCLS.   | USPAT; US-PGPUB   | 2004/08/31 16:54 |
| 166 | 3383    | b65h067/06.ipc. or b65h067/06.epc.  | EPO; JPO; DERWENT | 2004/08/31 16:55 |
| 167 | 3854461 | flange or guide or end or cap   | EPO; JPO; DERWENT | 2004/08/31 16:56 |
| 168 | 1424    | (b65h067/06.ipc. or b65h067/06.epc.) and (flange or guide or end or cap)  | EPO; JPO; DERWENT | 2004/08/31 16:56 |
| 169 | 1468214 | spindle or core or tube   | EPO; JPO; DERWENT | 2004/08/31 16:58 |
| 170 | 410     | ((b65h067/06.ipc. or b65h067/06.epc.) and (flange or guide or end or cap)) and (spindle or core or tube)  | EPO; JPO; DERWENT | 2004/08/31 16:57 |
| 171 | 338078  | b41j\$.ipc. b41j\$.epc.   | EPO; JPO; DERWENT | 2004/08/31 16:58 |
| 172 | 0       | (((b65h067/06.ipc. or b65h067/06.epc.) and (flange or guide or end or cap)) and (spindle or core or tube)) and (b41j\$.ipc. b41j\$.epc.)                        | EPO; JPO; DERWENT | 2004/08/31 16:57 |
| 173 | 0       | (b65h067/06.ipc. or b65h067/06.epc.) and (b41j\$.ipc. b41j\$.epc.)  | EPO; JPO; DERWENT | 2004/08/31 16:57 |
| 174 | 8938    | (b41j\$.ipc. b41j\$.epc.) and (spindle or core or tube)   | EPO; JPO; DERWENT | 2004/08/31 16:58 |
| 175 | 50991   | (spindle or core or tube) near3 (paper or media or web or tape or sheet or medium or substrate)   | EPO; JPO; DERWENT | 2004/08/31 16:58 |
| 176 | 745     | ((b41j\$.ipc. b41j\$.epc.) and (spindle or core or tube)) and ((spindle or core or tube) near3 (paper or media or web or tape or sheet or medium or substrate)) | EPO; JPO; DERWENT | 2004/08/31 16:59 |